Meeting Summary

eHealth Technical Working Group
Kickoff Meeting
December 1, 2009 12:00PM-1:30PM

Please refer to the meeting slides for additional information.

Introductory Remarks

Following attendee introductions, Walter Sujansky took a moment to acknowledge that funding for this work has been provided in large part by the California Endowment and LA Care Health Plan.

Committee Structure (Slide 4)

CHHS has been organizing state resources and stakeholders to promote health information exchange (HIE), and to ensure that HIE is benefited by the federal funding that is now available. These activities have been spearheaded by the office of the Deputy Secretary for Health IT under Jonah Frolich. The current effort has involved the creation of a set of committees, known collectively as the eHealth Technical Committee, to provide technical input from stakeholders. The eHealth Technical Committee will be put under the CA HIE Governance Entity once selected and put in place. The eHealth Technical Committee consists of:

- a Technical Advisory Committee (TAC, providing high level technical and policy input)
- a Technical Working Group (TWG, providing in-depth technical expertise and performing much of the work of designing the HIE technical architecture)
- a Public Review Group (PRG, open to all interested parties, providing review and feedback of committee's work including interim products and deliverables).

Goals and Deliverables (Slide 5)

The goal of the present activity is to design a technical architecture for shared HIE services for the state of California. These services will help California stakeholders achieve meaningful use. The deliverable from the committee will be an HIE architecture design document. The architecture will underpin the State Operational Plan for HIE, which will be submitted to the federal government as a requirement for ARRA funding. (A certain amount of this funding is available to help states create and maintain health information exchange infrastructure.) Additionally, the architecture will need to be defined at a level specific enough to inform future procurement activity.

Deliverables of the Technical Committee will be a technical design document for shared HIE services, which will be reviewed and approved by the Deputy Secretary of Health IT, Secretary of CHHS, and the State Chief Information Officer. The document will then be incorporated into the State Operational Plan. The role of the Technical Work Group is to come up with a design that meets requirements and makes sense both from a technical and practical perspective. The Technical Advisory Committee will provide input and feedback to the TWG.

Project Charter (Slides 6-7 and charter document)

The eHealth Technical Committee charter, which was sent to all TWG members, was reviewed for points of particular importance to the work of the TWG, including the following principles:

- Principle 2: Meaningful use requirements should serve as the foundation for the services that will be developed.
- Principle 8: The design process should identify and prioritize services critical to achieving meaningful use, while deferring other services that are not critical in the near-term
- Principle 9: The design should be scalable, flexible, based on standards, and independent of specific computing platforms or products.
- Principle 10: The design of HIE services should leverage to the extent possible the existing IT assets of stakeholders.
- Principle 13: The design should support interoperability with a nationwide health information network (NHIN) as it emerges, and if practical, with HIE infrastructures of other states.

Anthony Stever noted that there was representation from CAeHC on the committee, and asked if the other organization being considered for designation as the Governance Entity would be on the committee given the importance of the committee's activity. Walter affirmed that there would be representation from the other organization, and that details were being finalized.

Rim Cothren informed the group that ONC plans to put NHIN into production in early 2010. This will involve deploying particular infrastructure components such as a CA and a service directory, and setting up governance and certification mechanisms for entities to join NHIN. Production-ready specifications for NHIN transactions will be released soon as well. Dave Handren further affirmed significant developments with the NHIN, stating that there is an HIE in Virginia that has been using NHIN Connect 2.0 specifications to interoperate with Social Security. The awarding of additional Social Security contracts to other entities as well as pending CMS contracts make it inevitable that NHIN will be operational and will have final specs for fundamental core services and messaging. Connect 2.3, slated for release later this year, will allow HIEs to exchange the CCD with other HIEs using those specifications.

Anthony suggested that these developments have important implications for the present activity, not just interoperability but the ability to use that infrastructure for our purpose. Walter agreed that the NHIN was important to keep in mind through the design process for two reasons: first, to avoid unnecessarily duplicating efforts if there are existing technologies, services, and systems in place through NHIN that will enable the achievement of meaningful use in California; and second, to be sensitive to any expectation for federal funding that statewide HIEs interoperate with NHIN. From a functional perspective, one decision that will need to be made is how much the state should rely upon NHIN (and future plans for NHIN) to achieve meaningful use in California.

Jeff Guterman asked whether it was correct to assume that the design process should not be constrained by particular technology or vendor choices made by the yet-to-be-determined Governance Entity and/or State-Designated Entity. Walter affirmed this, observing that no assumptions had been made that such technology choices would even be relevant, given that CHHS had reserved the right to manage the HIE infrastructure itself apart from a State-Designated Entity.

Meaningful Use as Context for HIE (Slide 8):

The definition of meaningful use is still an ongoing process, with the Office of the National Coordinator to release a Notice of Proposed Rulemaking on the subject within the next month. Definitions are not likely to be finalized until Spring 2010. From what is currently known, meaningful use will include several facets that involve HIE services, such as: e-prescribing, e-lab, clinical summary sharing, population health, immunization registries, patient-centered care, public health reporting, and administrative simplification. To this last item, Walter noted that there are other efforts within the state that are trying to address this issue, and the current design activity should take into account these efforts. Additionally, it was noted that the ability to bring together a comprehensive view of patient data from disparate sources is not listed as part of these aspects of meaningful use.

Roles and Responsibilities (Slides 9-10):

The Technical Working Group is comprised of a diverse group of domain experts in HIE. The role of TWG members will be to contribute critical ideas and feedback to inform the technical design process. Consulting staff will assist by developing draft documents, gathering data, and incorporating comments from the group. The TWG will be asked to provide its technical expertise and input either through data gathering or creation of some aspects of the technical design for an HIE architecture. The two other groups comprising the Technical Committee include the Technical Advisory Committee (TAC) and the Public Review Group (PRG), which together with the TWG provide a feedback loop to the architecture design process. The TAC, whose membership is representative of California stakeholder organizations, will provide high-level input on priorities, capabilities, and tolerances of various stakeholders. The Public Review Group is open to any interested parties and will periodically provide feedback on interim technical designs and identified design issues.

Project Timeline and Milestones (Slide 11):

The project is proceeding under a very aggressive timeline. The state operational plan will be submitted to ONC on March 31, 2010. Working backwards from this deadline, the group will need to submit its final deliverable to CHHS by late February so that it can be incorporated in the operational plan and released for public comment. A first draft of the design document will be completed by January 7 to give adequate time for two rounds of refinement and revision. Thus, the initial research and design period will be undertaken between now until the beginning of January. The TWG will meet weekly during this initial period, and transition to a biweekly schedule in January.

A discussion ensued about the appropriate granularity of the architecture to be designed by the committee. Dave Handren raised a concern about potentially being sidetracked by going too deep into specifying how things need to be done as opposed to focusing on desired results, i.e. achieving

meaningful use, particularly given the short timeframe. Walter stated that the federal funding being applied for is intended to support the development of an HIE infrastructure in California. Given this rationale, the general approach being taken by the Deputy Secretary of Health IT is to understand and develop important shared services and infrastructure that can be supported by the state to encourage HIE where it is needed. The task of the committee is therefore to conceive of and describe these services in sufficient detail such that the architecture informs the procurement process, and that those interested in using these services can do so. This level of specification will likely need to go beyond describing requirements. Dave Minch agreed, and suggested that the design will need to specify necessary technologies for HIE without getting into specific products; such specification will be necessary to properly align HIE services with the EHR systems being used by providers to achieve meaningful use.

Jeff Evoy suggested that the design process incorporate use cases and workflows. Walter pointed out that the meaningful use goals are themselves high level use cases. One question that will need to be answered is whether certain standards should be specified as part of the architecture or not (for instance, the meaningful use goal of incorporating lab results into EHRs as structured data could be accomplished using HITSP C36 or HL7 v2.x messaging). Dave Minch made the suggestion that the level of detail should be deep enough to be able to describe the standards that are in play, but to prescribe a certain standard would ignore the reality that different standards are used. Another participant commented that it will be important to watch for the draft rule that will come out of CMS, because a question that has remained unanswered is the extent to which meaningful use criteria will be tied to nationwide standards. The point was also made to keep the design practical to avoid the problem of specifying standards that are too complex and too costly to implement.

Logistics (Slide 13)

An online collaborative project space is being set up for use by TWG. Shared documents, project calendar, email archives, and other project resources will be available on the space, which will be accessible at: http://chhsehealth.projectspaces.com. Note that this URL has changed since the meeting. User accounts will be created for each TAC member. Accounts for additional meeting participants can be created upon request. An email explaining how to log in and use the tool will be sent to the committee when the space is ready for use. In addition, two email lists will be set up for use by the committee, one for discussion (twg-discuss@lists.projectspaces.com) and one for announcements (twg-announce@lists.projectspaces.com). Replies to the discussion list will be broadcast to the entire list, while replies to the announcement list will only go to the sender of the message.

Point of Departure: State Strategic Plan (Slide 14)

In the previous planning phase, a State Strategic Plan was developed that serves as point of departure for the current activity. The major recommendations found in the strategic plan include the following: (1) Identify and deploy shared services in alignment with meaningful use; (2) Adopt interoperability protocols based on non-proprietary standards; (3) Favor the service-oriented architecture design pattern; (4) Assure vendor and technology neutrality; (5) Leverage existing infrastructure and capabilities.

Anthony Stever asked to what degree the state was planning on actually providing the HIE services and maintaining the architecture. Walter answered that the state would be using the available federal funding to develop and maintain the proposed architecture in the near term. It will be important to consider the source of sustainability for the longer term, however. Dave Handren commented that in his discussions with ONC, eventual sustainability has always been the goal. It was his impression that the goal of ARRA funding for HIEs was to assist in them in their goal towards sustainability, which all HIEs are moving towards. Long Beach Network for Health is about to sign a contract guaranteeing every element of meaningful use, motivated out of the desire for sustainability. Dave also expressed concern that the state was entering the business of HIE because this may disrupt the incentive for HIEs to be sustainable and may encourage approaches that are unsustainable.

Anthony advised looking at extant models in order to identify a framework with which to begin as opposed to starting from scratch. Walter agreed that this would be helpful, with the caveat that these models have not dealt with meaningful use before and therefore may not be entirely applicable to the current objective.

Tim Andrews suggested that the advantage of a good architecture is that it allows as much individual flexibility and independence as possible in the face of somewhat ill-defined requirements (in this case, meaningful use). He also observed that it is often difficult to talk about things on an abstract level, and predicted that once attention is focused on more concrete details, there would be significant convergence on a number of issues, in part because some of the choices have already been made at the national level. However, there will still be a number of choices to make, such as: will the state play a role in administering or running anything? Delaware, Vermont, and Idaho have HIEs that are completely run by the state. In contrast, New York State does not run anything, instead relying on regional efforts and public/private partnerships. There is no right answer, and California is a very complex state.

Jeff Evoy asserted that a missing piece in many past HIE efforts has been bringing payers to the table. In their current HIE effort with IBM, Aetna and Anthem have agreed to redefine health plans and are beginning to reimburse for outcomes rather than for services. It will be important to get the payer industry to commit to re-engineering their business model. Walter agreed, and pointed out that a challenge is how to factor the possibility of such a development into a technical architecture. How does one appropriately weigh the chance of this change happening and include the implications of such for a sustainable technical architecture.

<u>Shared Services Requirements to Achieve Meaningful Use</u>

Walter then revisited the list of meaningful use criteria (Slide 8) and asked for volunteers to generate a list of shared services needed for enabling the achievement of each meaningful use goal. For instance, in the e-prescribing domain, the question to answer is, what shared services are needed to enable meeting the criteria of being able to generate and transmit prescriptions electronically? Some examples of shared services that may be needed include a standard, a web service, a function, a certificate authority, an MPI, etc.

These lists are due by open of business on Monday, 12/7 so that results can be analyzed and presented at the meeting on 12/8.

Volunteers are as follows:

- E-prescribing: Jeff Evoy
- E-lab: Dave Handren
- Clinical summary sharing: Rim Cothren
- Population health: Anthony Stever
- Immunization registries: Anthony Stever
- Patient centered care: Sujansky & Associates
- Public Health Reporting: Scott Christman
- Quality Reporting: Sujansky & Associates
- Admin Simplification: Sujansky & Associates

In response to Walter's example, Dave Handren offered that the LBNH approach involves e-prescribing transactions using Surescripts through their web portal, and the ability to pull a patient's medication history at same time. Walter noted that while the Surescripts standard supports medication history transactions, most pharmacies in fact do not support this. Dave added that their federated architecture allows them to couple that data with inpatient and outpatient medication data from their exchange partners.

Jeff Guterman argued that this was a critical point, and felt very strongly that to comingle inpatient and outpatient medications in a med history would make it almost valueless to the clinician doing review. Thus, the group must very careful about what data is aggregated and how it is presented, and must avoid "putting too much in the firehose," because this can dilute the value of information. Walter mentioned that TAC had made a similar point about ensuring that data made available by HIE shared services is of high quality and is useful, and that certain processes don't degrade the value of this information. One possibility is that the shared service needs to be smart enough to reconcile overlapping or outdated medication histories. Another approach would be for the EHR to have this capability. Jeff agreed, but pointed out that the EHR or presentation layer can do this only if the data elements are available to filter the information.

Connectivity Models (Slides 16-19)

Walter reviewed three models that were included in the State Strategic Plan for HIE as possible ways to accomplish connectivity to shared HIE services across the state. Members were reminded that the strategic plan (available here) represents the point of departure for the work of the Technical Committee. The three models are:

- Exclusive HIE Geographies Model. This is a hierarchical model that provides connectivity to shared services for anyone in the state. Mutually exclusive geographical HIEs collectively cover the HIE shared services needs of entire state. In this model, there is only one way to connect, which is determined by location.

- State-Supported Utility. In addition to regional HIEs for certain geographical regions, there is an assumption that many regions within the state (including many rural areas) will not be covered by a regional HIE. In such cases, a state-sponsored utility will serve as a blanket provider of last resort for connectivity to shared services. The utility would be funded and possibly operated by the state. Consumers would be able to connect through the regional HIE, the state utility, or both depending on location.
- Neutral Connectivity Model. This is a peer-to-peer model, with no enforced hierarchies. Allows broader participation in providing the infrastructure for HIE. The idea is that any entity complying with the requirements of a statewide architecture and its policies can connect, either to provide or request services. This model utilizes a service bus approach, with certain standards, architecture, and policies defined that need to be adhered to. Consumers can connect directly to available services or through an HIE. This model provides maximum flexibility to meet California's complex and changing health care system.

Dave Handren expressed his concern that competition and new ideas would be limited if either of the first two models was chosen. Innovation is needed since the field is very young, and it would not make sense to erect barriers that would hinder opportunity and impede the development of new approaches. Walter pointed out that there were also hybrid models to be considered. For instance, one might consider a neutral connectivity model with no enforced hierarchies, but the state could provide certain services that the market hasn't yet provided, has no incentive to provide, or doesn't provide in certain areas, so that everyone can benefit from the shared services. Dave was supportive of such an approach, seeing it as an innovation and an opportunity.

<u>Next steps</u>

1. An email will be sent to group members in the next few days with information about the online project space and email lists. Members are encouraged to voice their thoughts and ideas through the discussion list.
2. Members who have volunteered to enumerate shared services for accomplishing various aspects of meaningful use will submit their thoughts by open of business on Monday, 12/7.
3. An email will be sent out to confirm the date of the next meeting, which is currently scheduled for 12/8.

Members Present

Name	Organization
Jane Brown	Nautilus Healthcare Management Group
Scott Cebula	Huntington Hospital
Scott Christman	CA Dept. of Public Health
Paul Collins	CA Dept. of Public Health
Robert("Rim") Cothren	Cognosante, Inc.
Jeff Evoy	Sharp Community Medical Group
Jeff Guterman	LA County Dept. of Health Services
Dave Handren	Long Beach Network for Health
Daniel Haun	Adventist Health
Kathryn Lowell	CA Business, Transportation and Housing Agency
Dave Minch	John Muir Health System
Lee Mosbrucker	CA Office of the Chief Information Officer
Eileen Moscaritolo	CalOptima
Anthony Stever	AWS Consulting / Redwood MedNet
Kris Young	CA Office of Health Information Integrity

Staff Present

Name
Walter Sujansky
Tim Andrews
Peter Hung